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HUMAN RESOURCES RESEARCH COUNCIL

# PROSPECTUS

1969 - 1970

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The design on the cover of this prospectus is proposed as an identifying symbol for the Human Resources Research Council. It was produced by Mr. John Edge of McDermid Studios, Edmonton.

## FOREWORD

In March, 1967, the Honourable E. C. Manning, Premier of Alberta, published *A White Paper on Human Resources Development*, in which he declared the intentions of his government "to make human resources development a supreme provincial concern" and to create the institutions required to improve the process of social policy development in the Province.

The same year, the Legislature passed *An Act to Establish the Alberta Human Resources Research Council* -- a quasi non-governmental agency whose function it would be "to undertake educational, social, economic and other research relating to and affecting the development and conservation of human resources in Alberta."

The inaugural meeting of Council took place in January, 1968. The first policy meeting was held in June of the same year. At that time, the Council established a few preliminary policy guidelines; it empowered the Director to assemble a small staff of planners; and it encouraged him to proceed with the development of long- and short-term plans for subsequent consideration by the Council.

In September, the staff assembled and began what was to become a three-month preliminary planning period.

Although the planning period was too brief to include much in the way of pre-planning research, an attempt was made, nevertheless, to impose some rigor and system upon the process. A five-phase (or,



more accurately, a five-task area) planning process was developed and used as a guide to activities.

Phase one was an attempt to lay firm hold of the *mandate*. This involved a careful analysis of the *White Paper* and the *Act*; an attempt to conceptualize the research domain; and the establishment of general objectives.

Phase two involved the development of a *bank of ideas*. This task was approached in two ways: first, by gathering (from a large number of individuals and groups) perceptions of emerging or persistent problems in society and suggestions as to how these might be researched; and second, by developing conceptual models which spawned ideas or researchable questions.

Phase three was an attempt to order problems and ideas and to impose various kinds of *perspectives* and limitations. Included here were studies of research programs under way elsewhere; attempts to identify gaps in knowledge and gaps between knowledge and practice; and efforts to specify specific aims and priorities.

Phase four was devoted to the description of the various *program areas* and the specific projects to be included in each.

Phase five, the *implementation* phase, which has just begun (and which must remain incomplete until further policies, including budget, are established), involves the negotiations needed to establish the staff capability (hired, seconded, commissioned or whatever) required to complete the various projects.

The document to be presented here is a summary of the products

of the preliminary planning by staff. It is not *the* plan of the Human Resources Research Council. Instead, it is a report and a prospectus -- a summary of our thinking to date and a proposed plan for the initial activities of the organization.

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A PROSPECTUS: 1969-1970

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## THE HUMAN RESOURCES RESEARCH COUNCIL

## ITS MANDATE

To assume (as the architects of the *White Paper on Human Resources* have clearly done) that the most important objective in the second-stage development of any society is the fullest development and conservation of its human resources is to set for that society a goal which no society has yet achieved. To accept that goal as the guiding principle in social policy formation (as the government of Alberta has recently done) is to confront policy-makers and the institutions of society with problems which, in light of the present state of knowledge, virtually defy resolution. Consider just a few illustrations.

## THE EMERGING SCENE

1. At a time when industrialization and mechanization (yesterday's priorities) are accelerating the pace of *mobility*, driving so many of our citizens away from the farms and small towns and attracting them into the sprawling cities (with all the potential for *inner-city decay*), the aim of creating environments conducive to "the good life" and to "the fullest development of individual potentialities" is in danger of being swept away in the mounting tide of on-going events.

2. At a time when the notion of *universal education* is being pushed vigorously upward, through the high schools to post-secondary institutions, the aim of improving the *quality of education* will

inevitably meet sharp competition from the counter-aim of increasing its universality.

3. At a time when more and more *bureaucratic institutions* (both governmental and non-governmental) touch the lives of more and more people in (it seems) increasingly arbitrary ways, the aim of fostering *individuation* and protecting *human rights* will undoubtedly get obscured by efforts to increase bureaucratic efficiency, through the use of computerized client-information system, routinized procedures, and so on.

4. At a time when a moral and *cultural revolution* seems to be gaining momentum (in the transformation of the churches, in the restlessness of youth, in the alienation of large segments of society, in inter-racial, inter-cultural, and inter-religious conflicts) and when *anti-establishmentarianism* is becoming rampant, the aim of developing a social character and purpose, a cultural identity, seems to defy achievement.

5. At a time when the business world tends to depend, increasingly, upon competition for its impetus, the aim of *equalizing opportunity* for our citizens seems likely to fall easy prey to the quest for more power, more wealth, more influence.

These are but a few of the dilemmas that confront any society that would adopt as its top priority the fullest development of its human resources. These are but a few of the problems that Alberta's policy-makers must ponder in the future.

## THE ROLE OF RESEARCH IN SOCIAL POLICY DEVELOPMENT

The process of social policy change and development may be conceived as a simple three-phase process: (1) policy establishment -- the legislative function; (2) policy implementation -- the executive function; and (3) policy assessment -- the evaluative function. In the case of government, these functions are discharged by the Legislature (and Cabinet), the Civil Service, and the electorate, respectively.

The policy-maker, in the discharge of his function, traditionally has relied heavily upon political intuition and acquired social sensitivity as the basis of decision; the civil servant has relied largely upon precedent and experience-based wisdom as the basis of action; the electorate has relied largely upon the vote and, to some extent, upon political pressure of various kinds as outlets for its judgments and reactions.

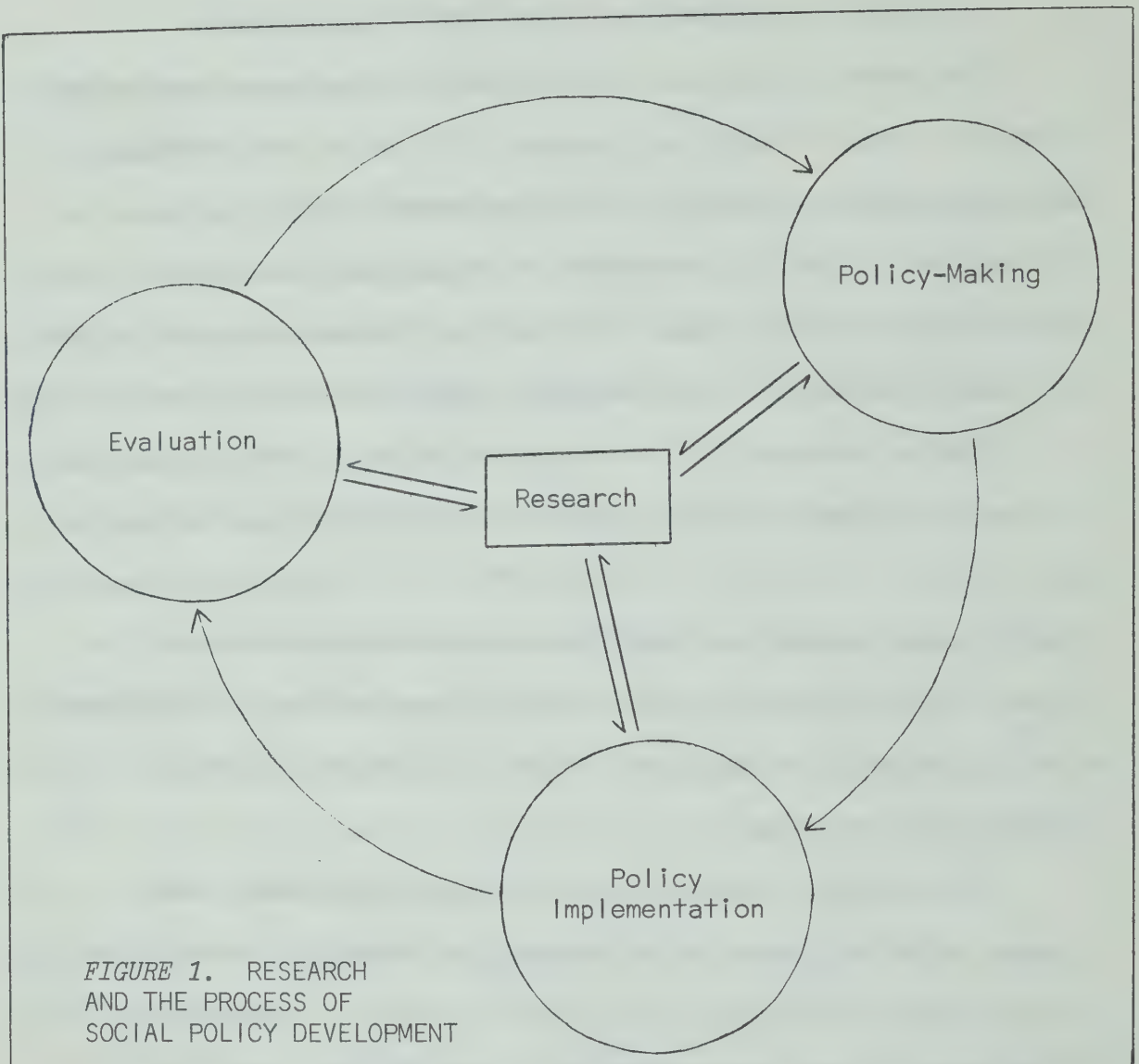
The role of a research agency which is affiliated, even loosely, with the social policy machine is to apply knowledge, to provide the rational basis for the policy process, in short, "to inform social policy development."

This role -- the informing of social policy -- must be seen as the *raison d'être* of the Human Resources Research Council. (See Figure 1.)

## PURPOSES OF H.R.R.C.

The general purpose of the Human Resources Research Council, according to the legislation, is " . . . to undertake educational, social, economic and other research relating to and affecting the





development and conservation of human resources in Alberta."

Specifically, this is interpreted to include:

1. the conduct, or sponsorship, of *basic research* designed to fill gaps in existing knowledge in appropriate domains;
2. the collection, *codification*, interpretation and dissemination of available knowledge for use by policy

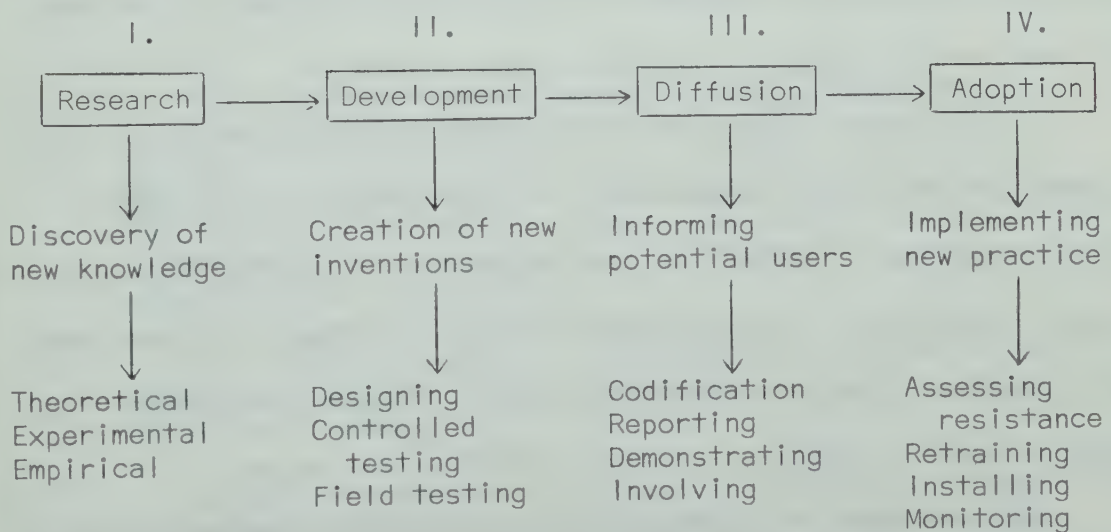
makers and others;

3. the *development* of plans, materials and processes for use by practitioners in fields related to human resources development or conservation;
4. the design and *monitoring* of programs of change;
5. the encouragement and support of *training* programs for researchers and developers in appropriate areas; and
6. the *informing* of all citizens of emerging trends and problems in the area of human resources development and conservation.

All of these objectives, and their corresponding research and development activities, are simply summarized in Figure 2.

FIGURE 2.

RESEARCH AND SOCIAL INNOVATION



But one must still ask: Research and development about what? What are the substantive aspects of the task?

We take as our starting point a concept of the individual human being. We assume that his talents or potentialities are multi-faceted; he has a potential to develop physically, affectively, and intellectually. In other words, he has the capacity to be physically healthy, to develop values and aspirations, and to acquire knowledge and skills.

We assume, next, that individuals develop differentially -- either because of differing endowments or (and) because of exposure to differing environments. Whatever the cause, this process of differentiation results in the attainment of a variety of statuses: some individuals become *exceptional* (inasmuch as they develop their talents beyond the norm); most might be regarded as *typical* (inasmuch as they contribute to the norm); others become *marginal* (inasmuch as they fail to develop in a typical fashion); and still others might be regarded as *alienated* (inasmuch as they refuse to accept or achieve the level of development which they could attain).

It should be noted, also, that society has created institutions to deal with (provide treatment for) individuals in all or most of these categories -- schools to provide education for the intellectually typical; hospitals to provide rehabilitative treatment for the physically marginal; jails to provide custodial treatment for those whose social alienation leads to criminal deviance; and so on.

Now the fact that individuals and groups do develop differentially, the fact that various agencies of society do contribute



to this development (or lack thereof) and the fact that unhealthy conditions emerge in society (either as causes or as results) -- all of these things are suggestive of the areas of concern of the Human Resources Research Council.

Precisely what is meant by "the development and conservation of human resources" is difficult to say; clarification must be a continuing task of the Council. As a beginning, we accept the image of the individual described by Chase in the following terms:

The end of development might be conceived in ideal terms as individuals who have the capacity to acquire and use many kinds of knowledge and employ knowledge for the enhancement of self and others --

Individuals who are able to learn through symbols of many kinds (linguistic, mathematical, musical, pictorial), and who are able also to learn from direct observation of life and its varied phenomena, and to relate the one kind of learning to the other --

Individuals who can express ideas clearly through speech and writing in their basic languages, and with some facility in at least one other language or a universal medium such as mathematical symbolism, music, or painting --

Individuals who know how to estimate probabilities by selecting and analyzing relevant evidence, but who recognize the limits of what can be known objectively and the vast extent to the unknown to be dealt with through the insights provided by religion, philosophy, and great literature of many kinds, when illuminated by one's own imagination and reflection --

Individuals who have a just perception of themselves and a just appreciation of the rights, needs, and potentialities of others --

Individuals who understand how the health of society is dependent upon freedom of judgments and expression for the individual, and who are willing to exert themselves to safeguard the institutions that undergird freedom of thought and other human freedoms --

Individuals who are guided more often by reason than by unconsidered emotions and prejudices --

Individuals who prize those things that contribute to the well being and elevation of mankind above those that provide only temporary pleasure --

Individuals who continue to learn by re-examining their values and assumptions, broadening their knowledge, deepening their appreciation of life in its various manifestations, and putting their faculties increasingly at the service of their aspirations.\*

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\*From Francis S. Chase, "The Alberta Human Resources Research Council: Some Perspectives" (mimeo).

## II.

### THE HUMAN RESOURCES RESEARCH COUNCIL

#### A RATIONALE\*

What "view of the world" seems most appropriate to the mandate of the Human Resources Research Council? How might its activities or areas of concern be ordered? To what end?

What organizational alternatives might be considered? What are the implications of each? How should H.R.R.C. relate to other research agencies? To policy makers?

Two rather basic assumptions have guided us in our search for answers to these questions:

1. Even though the fixing of short-term plans and priorities may be subject to a number of exigencies and circumstances, a comprehensive, systems view of the task of H.R.R.C. is a long-range planning imperative. (This concept of the mandate is specified in the *White Paper*.)
2. The goal of H.R.R.C. (according to *The Act*) is to strengthen the research capability of the Province,

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\*Many of the ideas presented in this section are condensed from:

1. Francis S. Chase, "The Human Resources Research Council: Some Perspectives" (mimeo);
2. R. Gordon McIntosh and John Hudson, "The Human Resources Research Council: Some Organizational Alternatives" (mimeo);
3. A. M. Decore, "Organizing for Research: A Systems Approach" (mimeo).



both by performing functions not adequately performed by other agencies and by facilitating the functioning of other agencies.

#### THE RESEARCH DOMAIN

Traditionally, scholars and researchers have viewed the world as a series of "domains of knowledge" -- with each domain defined in terms both of the substance of the phenomena with which it deals and of the strategies of inquiry that its scholars employ.

If H.R.R.C. were to assume this perspective, it would simply divide its studies into sociological studies, psychological studies, economic studies, and so on. But clearly, this would be an inappropriate strategy -- for it would not take account of the interconnectivity of subject matter as it applies to specific human problems. Furthermore, it would very likely result in an emphasis upon so-called basic research, to the exclusion of development-inspired and problem-oriented studies. Hence, it would very likely result in an attempt to duplicate the university's research role.

Another view, the one traditionally espoused by social policymakers, is the "social services view." In this perspective, society and its agencies are perceived as vehicles for providing various services to individuals and groups. The nature of the service becomes the organizing principle and health, welfare, education and so on become the fields of endeavor.

The major objection to this approach is that it, too, is seriously fragmented. Human problems tend to be multi-faceted. A

problem which manifests itself in education, for example, is just as likely to have its roots in health or welfare as it is to be a purely educational issue.

Though each of these views is perfectly legitimate and, in some respects, useful, and though each has its advocates (academics or policy-makers), neither appears to be appropriate to an organization such as H.R.R.C.

Yet another perspective has been suggested by Chase and Decore. In their perspective, the *form* rather than the *substance* of the various research activities becomes the basis upon which the research domain is conceptualized.

A conceptual framework, showing the nature and function of the various research forms (and the interrelationships among the various forms) is presented on the next page.

It should be noted that these research types or forms are not conceived as discrete areas of activity, separable one from the other. On the contrary, as will be indicated later, specific program areas include several levels and forms of research activities.

It follows that the rationale has few if any organizational implications. It is simply a device for conceptualizing the research domain -- for analytical and planning purposes.

FIGURE 3.

# HUMAN RESOURCES RESEARCH COUNCIL: A RATIONALE FOR A COMPREHENSIVE RESEARCH PROGRAM

FORM I OPERATIONS STUDIES	FORM II BASE-LINE STUDIES	FORM III RESEARCH AND DEVELOPMENT	FORM IV DISSEMINATION ACTIVITIES
<p><b>I. Operations Studies</b></p> <p>The purpose of these studies is to inform the planning activities of the research agency itself. Included here might be such activities as the following:</p> <ol style="list-style-type: none"> <li>1. A study of the data-storage and retrieval capabilities of the province and the design of alternative plans for a data system for H.R.R.C.</li> <li>2. Studies of the research capabilities of the province and the implications for the development of the research capability of H.R.R.C.</li> <li>3. Studies of social science research organizations, the correlates of research productivity, and the implications for the organization of H.R.R.C.</li> <li>4. Studies of perceptions of emerging social problems, needed research, and the role of H.R.R.C.</li> <li>5. Panel and opinion studies (developing the "art of conjecture") to search for possible futures for society and the obstacles to be overcome in attaining them.</li> <li>6. Others.</li> </ol>	<p><b>II. Social Stock-Taking</b></p> <p>The purpose of these studies is to obtain descriptions of existing conditions -- to suggest areas of needed research and development and to provide a base against which to assess progress. These may be:</p> <ol style="list-style-type: none"> <li>1. Studies of specific <i>factors</i> such as opportunity, poverty, etc.</li> <li>2. Studies of various <i>areas</i> or regions such as cities, rural areas, etc.</li> <li>3. Studies of <i>groups</i> such as ethnic, socio-economic, religious, age-level, etc.</li> </ol>	<p><b>V. Fundamental Research</b></p> <p>The purpose of these studies is to add to the store of knowledge on a particular issue. They may take the form of:</p> <ol style="list-style-type: none"> <li>1. Theoretical studies.</li> <li>2. Experimental studies.</li> <li>3. Empirical studies.</li> </ol>	<p><b>VIII. Dissemination</b></p> <p>The purpose here is to communicate the results of research to other researchers and to policy-makers or practitioners. Communication may take the form of:</p> <ol style="list-style-type: none"> <li>1. Newsletters, monographs, research reports, sample materials, etc.</li> <li>2. Conferences, seminars, clinics, workshops, etc.</li> </ol>
<p><b>III. Evaluative Studies</b></p> <p>The purpose here is to evaluate various aspects of the social service program. These may take the form of:</p> <ol style="list-style-type: none"> <li>1. Evaluations of specific <i>programs</i> such as welfare or education.</li> <li>2. Assessments of specific <i>institutions</i> such as the school, the family, etc.</li> <li>3. Assessments of specific <i>qualities</i> in programs or institutions such as the comprehensiveness of a program, the adaptability of an institution, and so on.</li> </ol>	<p><b>VI. Invention and Development</b></p> <p>The purpose of these activities is to create inventions or products, based upon available knowledge. Products may take the form of:</p> <ol style="list-style-type: none"> <li>1. Materials for use in practice -- for example, instructional materials for education.</li> <li>2. Processes or procedures for use in such fields as social work, education, etc.</li> </ol>	<p><b>VII. Demonstration and Field Testing</b></p> <p>The purpose here is to field test a variety of inventions or innovations under local conditions. Inventions may grow out of:</p> <ol style="list-style-type: none"> <li>1. Research and/or development activities conducted by H.R.R.C.</li> <li>2. Reviews of research and emerging theories.</li> <li>3. Products which grow out of R and D conducted elsewhere.</li> <li>4. Reviews of trends.</li> </ol>	<p><b>IX. Planning Activities</b></p> <p>The purpose here is to provide specific information to planning agencies, to assist in the interpretation of the information, and to help weigh the probable consequences of alternative courses of action. This may involve close liaison with:</p> <ol style="list-style-type: none"> <li>1. An educational planning agency.</li> <li>2. Social Planning Councils.</li> <li>3. Other.</li> </ol>
<p><b>IV. Syntheses and Codifications</b></p> <p>The purpose of these studies is to pull together available knowledge on a particular subject -- either to identify gaps in knowledge (needed research) or gaps between knowledge and practice (needed development work). These may be:</p> <ol style="list-style-type: none"> <li>1. Summaries and codification of research data.</li> <li>2. Reviews of innovative practices.</li> <li>3. Summaries of emerging theories and informed opinions regarding specific issues.</li> </ol>			



## ORGANIZATION: DEVELOPING A RESEARCH CAPABILITY

The organizational alternatives open to an institution such as the Human Resources Research Council are innumerable -- ranging all the way from the *foundation model* at one extreme to the strictly *in-house model* at the other.

The alternatives must be considered, of course, within the context of the organization's mission. And the more concisely the mission can be stated, the more rational the organizational decisions can become.

Let us begin by examining some of the alternatives and their comparative utility under various circumstances.

In the *foundation model*, virtually all activities are carried on outside the organization. This strategy seems to be most appropriate when (1) the mandate is diffuse and changeable, (2) the program emphasis is upon basic research rather than development, and (3) the motive is to influence and activate other research agencies, such as universities.

In the *in-house model*, all activities are carried out either by the staff of the organization or under the direction of the staff of the organization. This mode seems to be most appropriate when (1) the mission is specific, (2) projects involve both research and development, and (3) the motive is to influence practice.

Given certain aspects of H.R.R.C.'s mission (the enhancement of the total research capability of the province, the conduct of both basic research and development activities, the informing of social

policy and practice, the resolution of the shifting problems of society, and so on), it is difficult to say which alternative, or combination of alternatives, is likely to prove the most viable. The research activities (summarized on page 12) are suggestive of a fairly diffuse and shifting, but nevertheless concise, mission; they are suggestive of an intent to influence both patterns of research and patterns of practice; and they are suggestive of a very broad range of research and development functions.

It may prove useful at this point, therefore, to examine another strategy -- namely *contracted studies*.

The contract or commission strategy is used by research agencies when (1) talents or resources not included in the in-house capability are needed, (2) the subject matter of the research is controversial and likely to be "politically dangerous" for the organization, and (3) the magnitude of the research task is so great as to be beyond the capability of the in-house staff.

Contracted research is to be avoided, however, when (1) there are likely to be difficulties of confidentiality, (2) there appear to be dangers of fragmentation or diversion from the mission, and (3) problems of interpretation, supervision, and involvement of clients are to be anticipated.

In addition, there is a danger, in excessive use of the contract mode, that the organization may be detracted from its central mission. Creative researchers tend "to do their own thing" -- in their own way, and at their own pace. Hence the problem of anticipating

outcomes from contracted research are even greater than those involved in anticipating in-house productivity.

Accordingly, we envision a research organization which is structured, in part, on the *foundation model* (inasmuch as it incorporates mechanisms for supporting selected inquiries by independent scholars); in part, as a *contracting agency* (inasmuch as it looks beyond itself for the research talents and expertise that it requires); and, in part, an *in-house R and D centre* (inasmuch as it includes an in-house capability for the conduct of certain kinds of research-development-planning-dissemination activities).

Precisely how these strategies might be employed will be clarified in our program descriptions, in the next section of this document.

### III.

#### PROPOSED RESEARCH PROGRAM

JANUARY, 1969 - APRIL, 1970

As indicated, we envision a variety of research forms:

(1) *Operations Studies*; (2) *Base-Line Studies* -- including social stock-taking, evaluations, and codifications; (3) *Research and Development Activities* -- including fundamental research, development of inventions, and field testing; and (4) *Dissemination Activities* -- including publications, conferences, and planning activities.

As indicated, also, the conceptual framework of research forms (see page 12) was developed simply as a guide to planning -- not as a device for programming activities or for structuring the research organization. In fact, some proposed research programs begin with base-line studies and proceed through fundamental research and development to field testing and demonstration. Others begin with theoretical and experimental studies which, in turn, are expected to spawn new developments. Still others are initiated as inventions which are to be field tested and monitored so that they may feed back problems for basic research. And so on.

In each case, our object is to begin at what is considered to be the most promising point -- at field testing, if products have already been developed elsewhere; at basic research, if the store of available knowledge is inadequate; at development, if invention and practice appear to lag unduly behind knowledge; and at evaluation or



planning, if the needs of a particular client agency are such as to demand immediate attention.

Finally, as indicated, we propose to employ a variety of strategies for the conduct of our activities and, hence, to adopt an eclectic organizational model -- incorporating some features of the *foundation model*, some features of the *in-house model*, and some features of the *contract model*.

The total proposed research plan is summarized on the next page. The various programs and sub-programs (projects) are detailed on subsequent pages.

## SUMMARY

### PROPOSED PROGRAMS AND PROJECTS (1969-1970)

#### PROGRAM AREA 100: OPERATIONS STUDIES

- 101. A study of *data storage and retrieval* capabilities in Alberta and the design of a data system for H.R.R.C.
- 102. A study of *research organizations*, the correlates of productivity in such organizations, and the implications for the strategies of H.R.R.C.
- 103. Preliminary feasibility and codification studies in selected areas (the *inner city*, *educational facilities*, *bilingualism*, other).
- 104. *Grants-in-aid* of selected studies by scholars in appropriate fields.

#### PROGRAM AREA 200: OPPORTUNITY

- 201. A base-line study of inequalities of *opportunity* in Alberta (political, economic, educational, etc.).
- 202. Second-stage *empirical studies of opportunity* in selected areas or as it applies to specific groups.

#### PROGRAM AREA 300: EVALUATION STUDIES

The development of mechanisms for cooperative evaluations of selected *government-sponsored programs* (Welfare, Youth, etc.) and other social service programs in Alberta.

#### PROGRAM AREA 400: INDIVIDUALITY

- 401. A base-line study of emerging trends and theories in the *individualization of instruction* and the extent to which these have influenced Alberta schools.
- 402. A field testing and second generation development project in *Individually Prescribed Instruction* (in cooperation with Research for Better Schools, Inc.).
- 403. Theoretical and experimental studies of the nature of *individuality*.
- 404. Experimental and developmental activities in *computer-assisted instruction*.

Auxiliary program activities include *program review* procedures, a *grant-in-aid* program, and a *newsletter* to schools.

#### PROGRAM AREA 500: DEMONSTRATION AND FIELD TESTING

- 501. The Small High School Project.
- 502. Other innovative projects to be determined.

#### PROGRAM AREA 600: MANPOWER AND EDUCATIONAL PLANNING

The development of a *mechanism* (a committee made up of the Universities Commission, Board of Post-Secondary Education and Department of Education) whereby the results of planning-based studies may be reported directly to the policy-making agency. Examples:

- a. Routine population and *manpower projections*.
- b. A forecast of *teacher supply and demand* in Alberta.
- c. A study of the need, training, placement and utilization of *community workers* in Alberta.
- d. Other studies as recommended by the Planning Committee.

#### PROGRAM AREA 700: DISSEMINATION

PROGRAM AREA 100  
OPERATIONS STUDIES

The purpose of operations studies is to acquire the information needed for rational planning and informed decision-making in the research organization itself. Typically, these decisions have to do with: (1) goals and priorities, and (2) strategies or means.

Though decisions regarding goals and priorities are usually based largely upon personal values and intuitive preferences, it is possible to inform even these decisions through the systematic identification and analysis of alternatives and through the accumulation of various kinds of information that may bear on these alternatives. Decisions regarding means or strategies are more subject to this kind of systematic analysis and to rational processes of planning.

Five projects are proposed in this program area:

101. *A study of the data storage and retrieval capabilities of Alberta and the design of a system for H.R.R.C.*
102. *A study of research organizations, the correlates of productivity in such organizations, and the implications for the strategies of H.R.R.C.*
103. *Six (6) preliminary studies (codifications and feasibility inquiries) in such fields as:*
  - a. *Emerging conditions in the cities.*
  - b. *The use of educational facilities.*
  - c. *Learning second languages.*
  - d. *Financing education and other public services.*
  - e. *The goals of education today.*
104. *A grant-in-aid program in support of selected research projects which promise to produce new insights in areas of interest to H.R.R.C.*

PROJECT 101: A STUDY OF DATA STORAGE AND RETRIEVAL  
AND THE DESIGN OF A DATA SYSTEM FOR H.R.R.C.

*Rationale:*

The legislative directive "to gather, analyze, coordinate and distribute available knowledge" clearly indicates that the greatest possible use be made of information already in existence. Rather than gathering data anew every time some problem is examined, the vast reservoirs of data routinely collected by a variety of agencies, particularly in government, might be used. Though these masses of data exist, they are often difficult if not impossible to use for research or planning purposes.

The development of computerized data storage techniques greatly improve the utility and accessibility of routinely collected data. Cross-linking of records further enhances the usefulness of such data for analytical purposes in research and planning. Data linkage can, however, be accomplished only if the units of storage are identifiable. Because the most useful units of storage are individuals, problems of confidentiality arise.

It may be possible not only for H.R.R.C. to use existing data, but also for H.R.R.C. to make its data available to other individuals or agencies. Once data gathered for some research project have been analyzed, their storage on either a geocoded or individual basis would allow others to use the same data.

*Objectives:*

1. To describe trends in data storage and retrieval.
  - a. To become aware of information already in existence;
  - b. To initiate the design of an overall data coding, storage, analysis, and retrieval system for H.R.R.C.;
  - c. To examine the implications for social policy (e.g., problems of confidentiality).
2. To establish a capability for coding and analysis of data gathered in the various projects of H.R.R.C.



*Research Activities and Staff Capability Required:*

<u>Phase</u>	<u>Activities</u>	<u>Staff</u>
I - to August, 1969	Descriptive study; conference on integrating data systems; recruiting of specialist staff.	Consultant
II - to April, 1970	Design of data system for H.R.R.C.; advice to staff.	Statistician Computer specialist

## PROJECT 102: THE CORRELATES OF PRODUCTIVITY IN RESEARCH ORGANIZATIONS

### *Rationale:*

The research organization is a comparatively new institution in our society. Until recently, the discovery-of-knowledge enterprise was regarded as the university's private domain; the function was discharged by "the lonely scholar," typically in whatever free time he could arrange, and with the assistance only of a small number of apprentices, the professor's graduate students.

More recently, however, the production of knowledge has become big business, indeed, the most important business in which a nation can engage. Not surprisingly, therefore, complex research organizations have sprung up both within and outside the university.

Students of organization have only recently realized that these new creations are unique among organizations. They have unique goals -- the production of knowledge. They employ unique workmen -- creative, sometimes unorthodox and idiosyncratic scholars. Their work divides in a strange and changing way -- each day's work dependent upon the last. Finally, their products are elusive, difficult to assess and impossible to predict -- the break-through in knowledge.

So we ask: What conditions relate to productivity in such organizations? What mix of staff is essential to the conduct of research in the various areas of public policy? What patterns of staffing and what organizational structure are most effective?

### *Objective:*

To identify alternative organizational patterns and research strategies for H.R.R.C. and to study the conditions under which the various alternatives are most productive.

*Research Activities and Staff Capability Required:*

<u>Phase</u>	<u>Activities</u>	<u>Staff</u>
I - to April, 1969	Search of literature and development of conceptual design; site visits to two or three non-university research agencies to aid in design of information-gathering techniques.	Research assistant
II - to April, 1970	Case studies and other data-gathering; analysis; report to Council.	Research assistant

## PROJECT 103: PRELIMINARY CODIFICATION AND FEASIBILITY STUDIES

One of the crucial needs in the fixing of research priorities and in the planning of specific research programs is sufficient knowledge to make wise decisions. In other words, one must know a good deal about an area before he can presume to design research and/or development projects in that area. He must know, for example, what store of knowledge is available and where the serious gaps are in knowledge. He must know how, why, and to what extent relevant practice lags behind what is known. And he must know what research, development, and inventions are under way elsewhere.

The purpose of the preliminary, base-line projects proposed here is to provide precisely this kind of information -- as a basis for subsequent policy-setting by the Council.

We propose that approximately six of these be undertaken in the first eighteen months of operation, including:

1. *Emerging conditions in Alberta cities;*
2. *The use of educational facilities in the context of community need;*
3. *The goals of education today;*
4. *Financing education and other public services.*
5. *Prospects for the development of "indices of functionality" for schools and other institutions (as suggested in the White Paper).*



PROJECT 104: GRANTS-IN-AID TO SCHOLARS AND RESEARCHERS

The intuitive leaps, the thrusts of the imagination which are the hallmark of great scholarship *cannot* be programmed. They happen when least expected; and, frequently, they happen when conditions are such that the brilliant idea cannot be developed immediately -- when its newness and boldness might well provide the impetus for outstanding work.

We propose that H.R.R.C. be prepared to support occasionally such bold and new ideas when they seem appropriate to our aims and policies. We propose that this be done through the establishment of a grant-in-aid program with funds allocated by a carefully selected committee made up of members of Council, members of staff, and persons not affiliated with Council.

PROGRAM AREA 200

OPPORTUNITY

Anyone seriously concerned with the development and utilization of human resources in Alberta cannot avoid considering the question of "opportunity." What conditions existing in Alberta allow for the satisfactory growth and development of individuals? What essential conditions must exist if growth and development of individuals is to be optimal? What existing conditions prevent persons and groups from taking advantage of the opportunities now available?

Our proposal to study social opportunity in Alberta reflects an interest not only in equality and inequality of opportunity, but also in the definition of new opportunities which would tend to maximize human growth and development in Alberta.

The program, in the beginning, will consist of one project -- a base-line study of inequalities of opportunity in Alberta in selected social institutions (economic, political, educational, legal, medical).

This first project is calculated to spawn a number of follow-up projects -- empirical studies of opportunity in selected problem areas. These subsequent projects will be designed and undertaken in collaboration with university researchers whose interests coincide with our own.

PROJECT 201: A BASE-LINE STUDY OF INEQUALITIES OF OPPORTUNITY  
IN ALBERTA (IN SELECTED INSTITUTIONS)

*Rationale:*

Before launching research projects and development activities dealing with various aspects of social opportunity in Alberta, it seems advisable to assess what is already known. Our first need, in other words, is a systematic synthesis of available knowledge to assemble a body of material which will clarify equality and inequality of opportunity in a variety of institutions in Alberta.

The best source of this information, we believe, is the scholars at work in the relevant disciplines in Alberta universities.

*Objective:*

To establish a base-line of knowledge to inform the designing and mounting of specific research projects in areas that H.R.R.C. considers to be priorities.

*Anticipated Outcomes:*

1. A *symposium* on social opportunity in Alberta.
2. A *monograph* describing the present state of affairs in Alberta in selected social institutions (political, economic, legal, medical, educational) and including:
  - a. definitions of concepts (for example, opportunity, equality of opportunity, inequality of opportunity);
  - b. identification of existing opportunities in selected social institutions in Alberta;
  - c. identification of some of the barriers which prevent people from taking advantage of existing opportunities; and
  - d. identification of new opportunities for human growth and development in Alberta.
3. A *specification of research priorities* for the next phase of the program.

*Research Activities and Staff Capability Required:*

<u>Phase</u>	<u>Activities</u>	<u>Staff</u>
I - to March, 1969	Preparation of working papers by university scholars in selected disciplines (economics, political science, sociology, education, law, and medicine).	Researchers to prepare papers
April, 1969 (3 days)	A symposium on social opportunity in Alberta	Coordinator
to August, 1969	Preparation of a statement of priority areas of needed research	Core staff of Council



PROGRAM AREA 300  
EVALUATIVE RESEARCH

*Rationale:*

Many of the programs of modern governments are designed to enhance, improve, modify or alter the human condition. The increasing rationalization in government operations and the increasing reliance on the techniques of science have led to a recognition of the need for more rigorous examination of these development programs. Searching questions are being asked: Are programs appropriate to the goals? Do programs achieve the goals set for them? What are the unanticipated effects of various programs? Could the same results be achieved with less expense in time and money? And, finally, can the means for answering these questions be built into the plans of programs?

*Objectives:*

1. To improve both the methodology and tools of evaluation.
2. To assess development programs launched by H.R.R.C.
3. To advise and assist the staffs of government departments or other agencies in the design and conduct of program evaluations.

*Research Activities and Staff Capability Required:*

<u>Phase</u>	<u>Activities</u>	<u>Staff</u>
I - to August, 1968	Recruitment of evaluation team; consultation with client agencies re. development of their evaluation capability.	
II - to April, 1970	Cooperation with staff of development programs on evaluation; design of projects to evaluate on-going government programs; development of new tools and techniques.	Statistician Economist Tests and measurements specialist

PROGRAM 400

PROGRAM ON INDIVIDUALITY

The Program on Individuality is a comprehensive research and development program addressing questions related to the development of individuality in a variety of ways. Initially, the program emphasizes the development of children and youth -- in particular, the school experience of these age groups.

The nature of individuality is itself a major question and must have our continuing concern. Present inability to answer this question fully, however, need not -- indeed, cannot -- deter us from making the tentative assumptions necessary for addressing the *development* of individuality in the applied aspects of the program. For example, we can choose to think of individuality in such terms as capacity for self-direction and willingness and ability to assume responsibility. From such starting points, both the theoretical and applied aspects of the program can move forward.

We assume that relationships can be uncovered between such qualities as capacity for self-direction and willingness to assume responsibility, on the one hand, and certain conditions prevailing in lives of children and youth, on the other. The conditions of schooling, in particular, are of interest to us. Much of our proposed program is devoted to research and development projects pertaining to the conditions of schooling as they relate to the development of individuality. Considerable attention is given in the program to the exploration of means for individualizing learning.

The Program on Individuality initially will consist of four research and development projects and several auxiliary activities.

The R and D projects are as follows:

401. *Base-Line Study: Conditions of Schooling Related to Individual Development;*
402. *Individually Prescribed Instruction;*
403. *Studies on the Nature of Individuality;*
404. *Computer-Assisted Instruction.*

The auxiliary activities of the Program on Individuality are as follows:

1. *Studies for program review;*
2. *Program newsletter;*
3. *Grants-in-aid to scholars and practitioners.*



PROJECT 401: BASE-LINE STUDY:  
CONDITIONS OF SCHOOLING RELATED TO INDIVIDUAL DEVELOPMENT

*Rationale:*

For children and youth, perhaps no setting (other than the home) has as great an opportunity for influencing the development of individuality as does the school. Whether, and in what degree, the schools do in fact contribute to the development of individuality is another matter. The purpose of this study, then, is to estimate the degree to which (and the means by which) Alberta schools contribute to the development of individuality. The study has two aspects: (1) the *subjective* (how students themselves respond to the experience of schooling); and (2) the *objective* (how schools take account of the individual student).

*Objectives:*

1. To develop one or more working definitions of individuality, and to delineate the various means by which learning might be individualized;
2. To develop a comprehensive annotated bibliography on individuality and individualizing learning;
3. To establish "benchmarks" against which to assess progress toward individualizing learning through the study of selected schools which have made considerable progress in this direction; and
4. To assess the current state of progress toward individualizing learning in Alberta schools using the techniques of sample survey and case study.

*Anticipated Outcomes:*

In addition to the outcomes implied by the project objectives, the following outcomes are anticipated:

1. An improved information base for decisions as to further research and development;
2. Generation of greater awareness among Alberta educators about *individualizing learning*.

*Research Activities and Staff Capability Required:*

<u>Phase</u>	<u>Activities</u>	<u>Staff</u>
I - to April, 1969	Further conceptualization of base-line study; preparation of bibliographies.	Research officer ( $\frac{1}{2}$ ) Staff associate ( $\frac{1}{2}$ ) Research assistant
II - to April, 1970	Design and execute studies to assess status of individualizing learning in Alberta.	Research officer ( $\frac{1}{2}$ ) Staff associate ( $\frac{1}{2}$ ) Research assistants (4) Statistician ( $\frac{1}{4}$ )
III - to April, 1971	Preparation and dissemination of materials resulting from the base-line study; decisions on further research and development activities as indicated by the base-line study.	Research officer ( $\frac{1}{2}$ ) Staff associate ( $\frac{1}{2}$ ) Research assistants as necessary

## PROJECT 402: INDIVIDUALLY PRESCRIBED INSTRUCTION

### *Rationale:*

The Learning Research and Development Center at the University of Pittsburgh initiated work on Individually Prescribed Instruction (IPI) systems some seven years ago. In recent years, their efforts have been supplemented by Research for Better Schools, Inc., a non-profit regional educational laboratory sponsored by the U. S. Office of Education, which field tests, evaluates, and modifies IPI systems. Of the work carried out to date under the research and development center program of the U. S. Office of Education, IPI systems are the most advanced.

The major work to date on IPI systems has been with mathematics and reading programs at the elementary level. It is with these systems that the Council's IPI project would begin. Developmental work in education requires such a high level of expenditure that collaborative activities with other R and D centers would seem to be essential as a matter of policy. The collaborative work here proposed would be the first expression of this policy.

### *Objectives:*

1. To establish one or more demonstration/testing centers for IPI materials;
2. To undertake further developmental work with IPI systems in cooperation with the Learning Research and Development Center (University of Pittsburgh) and Research for Better Schools, Inc. (Philadelphia, Pennsylvania);
3. To assess the applicability to Alberta schools of developed IPI systems; and
4. To disseminate research and development findings on IPI systems to educators throughout the province.

### *Anticipated Outcomes:*

In addition to the findings implied by the project objectives, the following outcomes are anticipated:

1. An early start (involving modest expenditures) in research and development activities leading to the creation of tested educational alternatives for use in Alberta schools.

2. Establishment of working relationships with other R and D centers in studies of mutual interest which can accelerate development of Council programs.

*Research Activities and Staff Capability Required:*

<u>Phase</u>	<u>Activities</u>	<u>Staff</u>
I - to April, 1969	Recruit project coordinator and staff and begin negotiations with cooperating school systems; negotiate agreement with RBS for testing and development of IPI systems.	Core staff of Council
II - to September, 1969	Summer training institute for teachers in the demonstration/testing schools; further development of IPI systems; develop evaluation design for appraisal of the IPI systems undergoing test.	Project coordinator Administrative assistant Research/Development Team (4) Principals and teachers (2-week summer institute)
III - to April, 1970	Testing and development work; decisions as to the scope of the second year's operation.	Staff as shown above
IV - to April, 1971	Testing and development work; dissemination of findings from the first year of operation; decisions as to scope of the third year's operation.	Staff as necessary, given decisions as to the scope of the second year project
V - to April, 1972	Project evaluation; decision as to whether the project should enter a second phase or should terminate; dissemination of findings.	Staff as necessary



## PROJECT 403: STUDIES ON THE NATURE OF INDIVIDUALITY

### *Rationale:*

It is our assumption that a better understanding of the uniqueness of persons will lead eventually to improved social practices in a variety of areas -- in formal education, in counselling, and in mental health programs, to name but a few. We assume further that basic studies on the nature of individuality will lead to important insights bearing on the design and evaluation of the developmental aspects of the Program on Individuality.

There are many ways of looking at *individuality*. Because we believe that studies of the development of a capacity for "responsibility" and "moral judgment" are particularly interesting and promising avenues of inquiry, these are given emphasis in this project proposal. We do not anticipate "payoffs" in the short run from basic research of this kind. Rather, we see such studies providing long-term guidance for a mature, well rounded research and development program.

### *Objectives:*

1. To support basic studies directed toward developing a viable theory of individuality;
2. To support theoretical and empirical work preparatory to studying the conditions under which persons develop a willingness and ability to exercise responsibility;
3. To synthesize the literature bearing on development of capabilities for making moral judgments; and
4. To study whether the conditions and circumstances intended to develop moral judgment in fact do so.

### *Anticipated Outcomes:*

In addition to the outcomes implied by the project objectives, the following outcomes are anticipated:

1. Operational criteria which can be used in assessing the outcomes of development projects in Program 400; and
2. A continuing input both of rigor and of substantive findings which will serve as a basis for continuing refinement of the objectives for the overall program.

*Research Activities and Staff Capability Required:*

<u>Phase</u>	<u>Activities</u>	<u>Staff</u>
I - to April, 1969	Appoint staff associates for the research projects; development of research designs.	Core staff of Council Staff associates' time as necessary
II - to April, 1970	Theoretical and empirical studies; preparation of proposals for subsequent studies.	Staff associates (2). Research assistants (3)
III - to April, 1971	Completion of first year's studies and preparation of reports; second year's studies; preparation of a long-term plan for basic studies on individuality	Staff as required

## PROJECT 404: COMPUTER-ASSISTED INSTRUCTION

### *Rationale:*

In recent years electronic computers have been used extensively in experimental settings as aids to learning and teaching. In particular, it has been demonstrated that they offer great potential for improving education by individualizing instruction. Through the use of computer-assisted instruction programs, what students learn, how they learn, and at what rate can be related to individual student differences in abilities and interests. Furthermore, the computer can free teachers from routine duties and allow them increased time for professional activities.

### *Objectives:*

1. To support developmental activities in CAI, for example, the development and testing of CAI programs for Grade VI Social Studies;
2. To support basic research in CAI, for example, the development of a language which will adequately communicate instructional needs to the computer; and
3. To assist in the training of personnel in the application of computers to instruction.

*Research Activities and Staff Capability Required:*

<u>Phase</u>	<u>Activities</u>	<u>Staff</u>
I - to April, 1969	Appoint project coordinator(s); award contracts for both developmental project and basic research; negotiations with school system(s).	Core staff of Council
II - to September, 1969	Basic research proceeds; social studies program developed; summer training institute for staffs of cooperating schools; evaluation design for program developed.	Project coordinators (2) Research/Development teams (2) Principal(s) and teachers of cooperating schools
III - to April, 1970	Program testing and basic research continue.	Staff as shown above
IV - to April, 1971	Program testing and basic research continue in light of experiences of Phase III.	Staff as shown above
V - to April, 1972	Projects continue and are evaluated; decisions made about future of projects; dissemination of findings.	Staff as necessary



## PROGRAM 400

### AUXILIARY ACTIVITIES

#### 1. STUDIES FOR PROGRAM REVIEW

The program plan as presented represents only a first step in the study of individuality and in the design of means and conditions for developing aspects of individuality. Extensions of an incremental nature to this program are anticipated in the second and subsequent years of its operation. In addition, some of the studies of individuality may lead to bold new conceptions of means and organizational arrangements for human resources development. Furthermore, certain areas of research and development offering considerable promise have not been considered at all, e.g. simulation games. It is proposed, therefore, to earmark funds for preliminary studies of specified areas of individualizing learning in which the Council might wish to become involved at a later stage.

#### 2. PROGRAM NEWSLETTER

It is proposed that the Council sponsor a newsletter on individualizing learning. Such a publication, appearing perhaps eight times yearly, would be a useful vehicle for informing teachers, administrators, trustees, and interested lay people of the research activities and findings of Program 400 and related activities in other research centres.

### 3. GRANTS-IN-AID PROGRAM

Through a grants-in-aid program, the ideas and efforts of scholars, teachers, and youth workers throughout the province could be influenced toward studies or projects related to the development of individuality.

A tripartite grants-in-aid program is suggested:

1. *Grants to institutions. By means of matching grants, the Council would stimulate the development and evaluation of supplementary programs of schooling, youth activities, and so on.*
2. *Grants to practitioners. Teachers and other youth workers would be encouraged to develop materials and procedures which might enhance the development of individuality.*
3. *Grants to scholars. These grants would be in support of social, psychological, and philosophical research on questions related to the development of individuality.*

PROGRAM AREA 500

FIELD TESTING

Before any innovation becomes adopted as part of practice, it is important to demonstrate its superiority over the practice that it supercedes. The purpose of this program, therefore, is to test selected innovative practices from education and the social services in field situations in Alberta. Following rigorous testing, including modifications and refinements when necessary to meet local conditions, a decision can be made whether or not to adopt a particular innovation.

Research indicates that the introduction of innovations is likely to be expedited when prospective users are actively involved in identifying the crucial problems and deficiencies in current operations and in suggesting possible solutions. It is suggested, therefore, that the Council involve practitioners in procedures for identifying, selecting, and testing promising innovations in particular fields. For example, the Council might actively involve representatives from the Department of Education, the Alberta Teachers' Association, the Alberta School Trustees' Association, and selected school systems in the identification, selection, and testing of innovations in education.

We suggest that the first project in this program might be the field testing of promising methods of improving educational opportunities for students in small high schools in Alberta.

## PROJECT 501: THE SMALL HIGH SCHOOL PROJECT

### *Rationale:*

Research shows that small high schools generally do not provide students with opportunities comparable to those of large high schools. In particular, the programs, library facilities, instructional supplies and equipment, and the leadership and consultative services of large high schools are superior to those of small high schools. Furthermore, student achievement in large high schools is superior to that in small high schools and teachers in large high schools are, in general, better educated than teachers in small high schools.

In 1965, however, 85 per cent of Alberta's high schools enrolled fewer than three hundred students and 25 per cent of those enrolled fewer than forty students. The small high school is, therefore, very much a part of the educational scene in Alberta.

### *Objectives:*

1. To field test in an Alberta school system a number of innovations which aim at improving the educational opportunities of students attending small high schools. These innovations include self-instruction systems and certain instructional innovations embodied in the multi-campus high school concept.

2. To refine and modify these innovations to meet local circumstances, with a view to recommending their ultimate adoption.



*Research Activities and Staff Capability Required:*

<u>Phase</u>	<u>Activities</u>	<u>Staff</u>
I - to April, 1969	Recruit Project Coordinator; visit N.W. Regional Laboratory; annotated bibliography of literature; preliminary discussions with cooperating school system; selection and preparation of instructional materials.	Core staff of Council
II - to September, 1969	Summer training institute for principals and teachers; further preparation of instructional materials; evaluation design for self-instructional systems.	Project coordinator Principal(s) and teachers of cooperating schools
III - to April, 1970	Testing of self-instruction systems.	Staff as above
IV - to September, 1970	Testing of self-instruction systems continues; further development of multi-campus high school concept; summer training institute for principals and teachers.	Staff as above
V - to April, 1971	Testing of self-instruction systems continues; multi-campus high school project proceeds.	Staff as above
VI - to April, 1972	Phase V activities continue; projects evaluated; dissemination of findings.	Staff as necessary

PROGRAM AREA 600

MANPOWER AND EDUCATIONAL PLANNING

The function of planning-based research is to *forecast* events in such a way as to make *coordinated development* possible.

Two spheres of activity are envisioned: (1) *Macro-planning* -- the production of the information needed to achieve balanced, pre-meditated growth in the total educational system (the province); and (2) *Micro-planning* -- the production of information needed for program design and evaluation in specific institutions (the high school, the technical institute).

Models and designs familiar to the economist, the demographer and the statistician are most appropriate to the former; concepts and skills possessed by the educator, the sociologist, the psychologist and others are appropriate to the latter.

It should be noted, however, that we contemplate the possibility of initiating new concepts and strategies in educational planning. Traditionally, the field has been limited largely to *quantitative* questions. We hope not only to deal with these aspects of the problem, but also to move to various kinds of inquiries into the *qualitative* aspects of planning -- to develop means for assessing the impact of educational programs (both formal and non-formal) upon the "quality of life" of the province.

It is difficult, indeed impossible, to declare precisely what activities are likely to characterize this program in the future. The following, however, are suggestive of proposed initial activities.

*Sample Project Areas:*

1. *The development of a mechanism to define needed research, to receive and interpret the results of research, and to proceed with appropriate planning and decision-making based upon this research. An existing ad hoc committee of the Department of Education, the Board of Post-Secondary Education and the Universities Commission is likely to assume this function.*
2. *A projection of supply and demand in the teaching profession and a study of the correlates of supply.*
3. *Similar studies of community workers and other short-supply manpower.*
4. *Special studies of the deployment and use of the talents of immigrants to Alberta.*
5. *Cost-benefit analyses of resource allocations in education.*

PROGRAM AREA 700

DISSEMINATION

*Rationale:*

The obligation to collect, codify, interpret, and disseminate information relevant to social policy and practice is clearly a part of the mandate of H.R.R.C.

*Objectives:*

1. To communicate relevant information to other research agencies; social policy-makers; administrators; practitioners in educational, social, and health services; and the general public.
2. To receive, store, and use relevant information from other research and development agencies.
3. To research and develop selected techniques and media of communication (including multi-media).

*Research Activities and Staff Capability Required:*

<u>Phase</u>	<u>Activities</u>	<u>Staff</u>
to April, 1969	Initiate publication of a newsletter, information leaflets, news releases, annual report; design a study of multi-media in cooperation with National Film Board; development of in-house materials centre.	5-day consultancy
to March, 1970	Publish (as required) research monographs, occasional papers; arrange four conferences as required by the research program; prepare art work and audio-visual materials; experiments in multi-media.	Contracted 20-day consultancy





The summaries of program areas and proposed projects presented in this section have been excerpted from the following detailed working papers and proposals that have been developed by members of the staff.

Francis S. Chase, "The Alberta Human Resources Research Council: Some Perspectives" (mimeo).

A. M. Decore, "Organizing for Research: A Systems Approach" (mimeo).

A. M. Decore, "Data Use and Data Systems" (mimeo).

L. W. Downey, "Research and the Process of Social Policy Development" (mimeo).

Ian Housego and L. Klimek, "Social Opportunity: A Research Program" (mimeo).

R. Gordon McIntosh and R. S. Drysdale, "Educational Planning" (mimeo).

R. Gordon McIntosh and J. Hudson, "A Program on Individuality" (mimeo).

R. Gordon McIntosh and J. Hudson, "The Human Resources Research Council: Some Organizational Alternatives" (mimeo).

J. Willson, "Communication" (mimeo).



## Summaries: Budget Estimates

Program 100 -- Operations Studies	\$ 14,000	
101 Data Systems	36,400	
102 Research Organizations	8,000	
103 Feasibility Studies	48,000	
104 Grants-in-Aid	50,000	\$156,400

Program 200 -- Opportunity	\$ 27,000	
202 Minorities	44,725	
203 Inner City	31,025	
204 Rural Life	31,025	
205 Early Life	34,925	
206 Adolescence	34,925	
207 Manpower	40,975	
208 Health	43,975	288,575

Program 300 -- Evaluation Studies	<u>\$ 52,000</u>	52,000
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Program 400 -- Individualization	\$114,800	
401 Base-Line Study	46,850	
402 Individually Prescribed Instruction	82,925	
403 Individuality	25,955	
404 Computer Aided Instruction	<u>56,130</u>	326,660

Program 500 -- Demonstration and Testing	<u>\$ 52,850</u>	52,850
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Program 600 -- Manpower and Planning	<u>\$ 88,000</u>	88,000
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Program 700 -- Dissemination	\$ 11,900	<u>11,900</u>
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TOTAL	<u>\$976,385</u>
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# II. ESTIMATES: IN-HOUSE VS. COMMISSIONED

Program	Commissions	In-House Estimates			Total
		Personnel	Other Costs	Total	
100	84,700	41,300	30,400	71,700	156,400
200	261,575	22,250	4,750	27,000	288,575
300		52,000		52,000	52,000
400	255,660	56,500	14,500	71,000	326,660
500		20,000	32,850	52,850	52,850
600		69,500	18,500	88,000	88,000
700			11,900	11,900	11,900
TOTALS	601,935	261,550	112,900	374,450	976,385

# III. ESTIMATES: STAFF ADDITIONS (Reference: H.R.R.C. Salary Schedule)

Program	Research Staff		Support Staff		Total Cost
	Description	Salary	Description	Salary	
100	Coordinator $\frac{1}{2}$ Statistician Programmer	14,040 7,020 15,660	Research Assistant  Key-Punch Operator	4,000  580	41,300
200	$\frac{1}{2}$ Coordinator	7,020	Admin. Assistant $\frac{1}{2}$ Research Ass't $\frac{1}{2}$ Secretary	9,480 3,750 2,000	22,250
300	$\frac{1}{2}$ Economist Measurement $\frac{1}{2}$ Statistician	8,400 14,040 7,020	Associates ( $3 \times \frac{1}{2}$ ) Secretary	18,540 4,000	52,000
400	Coordinators ( $2 \times \frac{1}{2}$ ) $\frac{1}{2}$ Statistician	12,960 6,000	Administrator Secretary Editor Research Ass'ts (2)	13,000 4,000 5,540 15,000	56,500
500	Coordinator	20,000			20,000
600	$\frac{1}{2}$ Coordinator Planner $\frac{1}{2}$ Statistician $\frac{1}{2}$ Economist	7,020 12,960 6,000 8,400	Research Assistants (2 full-time; 2 part-time) Secretary	31,120  4,000	69,500
Totals	10 Staff Equivalents	146,540	Total Staff Support	115,010	261,550







